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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,753	03/03/2004	Gary Everett Grollmund	033018-138	2906
21839	7590	09/23/2005		
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404				
			EXAMINER KERSHTEYN, IGOR	
			ART UNIT 3745	PAPER NUMBER

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,753

Applicant(s)

GROLLIMUND ET AL.

Examiner

Igor Kershteyn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex-parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-21 is/are allowed.
- 6) ☒ Claim(s) 1-3, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 4-13 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/3/04, 5/31/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (1,244,160).

In figures 1-4, Anderson teaches a device useful for transferring quantities of a fluid from a reservoir to a downstream component, comprising: a cylinder housing 4 having an axially extending first cylinder therein; a first piston 33 rotatably and reciprocally mounted within the first cylinder, the outer periphery of said first piston 33 forming an interference fit with the inner periphery of said first cylinder, at least one groove 49 in the outer periphery of said first piston 33, said groove 49 extending in an axial direction of said first piston 33, and said first cylinder having an inlet port 47 adapted to provide fluid communication between an inlet and said at least one groove 49 when said first piston 33 is in a first position, and an exit port 48 spaced from said inlet port 47 providing fluid communication between said at least one groove 49 and an outlet when said first piston 33 is rotated to a second position, and said piston 33 moves to drive fluid out of said outlet.

Claims 1, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (1,326,889).

In figures 1-5, Anderson teaches a device useful for transferring quantities of a fluid from a reservoir to a downstream component, comprising: a cylinder housing 8 having an axially extending first cylinder therein; a first piston 10 rotatably and reciprocally mounted within the first cylinder, the outer periphery of said first piston 10 forming an interference fit with the inner periphery of said first cylinder, at least one groove 18 in the outer periphery of said first piston 10, said groove 18 extending in an axial direction of said first piston 10, and said first cylinder having an inlet port 13 adapted to provide fluid communication between an inlet and said at least one groove 18 when said first piston 10 is in a first position, and an exit port 14 spaced from said inlet port 13 providing fluid communication between said at least one groove 18 and an outlet when said first piston 10 is rotated to a second position, and said piston 10 moves to drive fluid out of said outlet.

Claims 1, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Folke (2,369,345).

In figures 1, 4, 6, and 7, Folke teaches a device useful for transferring quantities of a fluid from a reservoir to a downstream component, comprising: a cylinder housing 10 having an axially extending first cylinder therein; a first piston 11 rotatably and reciprocally mounted within the first cylinder, the outer periphery of said first piston 11 forming an interference fit with the inner periphery of said first cylinder, at least one

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groove 15 in the outer periphery of said first piston 10, said groove 15 extending in an axial direction of said first piston 10, and said first cylinder having an inlet port 16 adapted to provide fluid communication between an inlet and said at least one groove 15 when said first piston 10 is in a first position, and an exit port 17 spaced from said inlet port 16 providing fluid communication between said at least one groove 15 and an outlet when said first piston 11 is rotated to a second position, and said piston 11 moves to drive fluid out of said outlet.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Folke (2,369,345).

Folke discloses all the claimed subject matter.

Folke does not disclose expressly at least one groove is a rectangular groove approximately 0.005 inch deep and approximately 0.010 inch wide.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify a pump of Folke with a rectangular groove approximately 0.005 inch deep and approximately 0.010 inch wide because Applicant has not disclosed that having a rectangular

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groove approximately 0.005 inch deep and approximately 0.010 inch wide provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art; furthermore, would have expected Applicant's invention to perform equally well with the groove of Folke for transferring the fluid from inlet to outlet ports..

Therefore, it would have been an obvious matter of design choice to modify Folke to obtain the invention as specified in claim 3.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Folke (2,369,345) in view of Lee (5,601,421).

Folke teaches all the claimed subject matter except that he doesn't teach the first cylinder is a bore within an injection molded body of a polymeric material.

Lee, in figure 1, teaches a fluid piston pump having a cylinder which is a bore within an injection molded body 62 of a polymeric material.

Since Folke and Lee are analogous art because they are from the same field of endeavor, that is the piston pump art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the cylinder of Folke with the polymeric material as taught by Lee for the purpose of reducing pump weight.

Allowable Subject Matter

Claims 14-21 are allowed.

Claims 4-13, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of two patents.

Kinne (3,447,468) is cited to show a pump having a cylinder, a piston, an inlet port, an outlet port, and the piston having a groove which communicates with the inlet and outlet ports at different stroke phases.

Tanny et al. (5,312,233) is cited to show a pump having a cylinder, a piston, an inlet port, an outlet port, and the piston having a groove which communicates with the inlet and outlet ports at different stroke phases.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is **(571)272-4817**. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

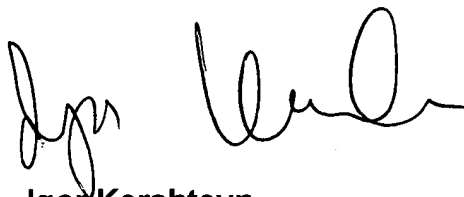
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on **(571)272-4820**. The fax number is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK

September 14, 2005

A handwritten signature in black ink, appearing to read 'Igor Kershteyn', is written over a horizontal line.

Igor Kershteyn
Patent examiner.
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